



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,586	11/08/2006	George Telfer	17172/034001	3960

26722 7590 03/17/2009
OSHA LIANG/MI
TWO HOUSTON CENTER
909 FANNIN STREET, SUITE 3500
HOUSTON, TX 77010

EXAMINER

ANDRISH, SEAN D

ART UNIT	PAPER NUMBER
----------	--------------

3672

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

03/17/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DOCKETING@OSHALIANG.COM
bergman@oshaliang.com

Office Action Summary	Application No. 10/574,586	Applicant(s) TELFER, GEORGE	
	Examiner SEAN D. ANDRISH	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 6, 8 - 15, 17 - 22, and 24 - 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 - 15 and 17 - 19 is/are allowed.
- 6) ☒ Claim(s) 1 - 6, 8 - 11, 20, 21, and 25 is/are rejected.
- 7) ☒ Claim(s) 22, 24, and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 12 and 20 are objected to because of the following informalities:
 - a. In claim 12, line 11: "Plurality of first Projections" should be changed to --plurality of first projections--;
 - b. In claim 12, line 19: "Plurality" should be changed to --plurality--;
 - c. In claim 20, line 9: "Portions" should be changed to --portions--.Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 8, 9, 11, 20, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickersham (1,837,639) in view of Russell (4,361,188).

Regarding claims 1 and 8, Wickersham discloses a downhole connector comprising: a coupling (12) connecting a running tool (10) and a setting sleeve (11); a first tubular member (10) having a first bore (20) therethrough, a first screw thread (24) on pin (21), the screw thread is located around an outer surface of tubular member (10), one or more raised portions (surface on which projections 36 are located) arranged circumferentially on the outer surface, the raised portions defining a first face surrounding the first tubular member (10) and substantially

Art Unit: 3672

perpendicular to the outer surface, the first face being directed toward the first screw thread (see threaded pin 21 in Fig. 3), the first face having a plurality of first projections (36), each first projection having a substantially first straight portion arranged parallel to the first bore of tubular member (10) and a first sloping portion, joining an apex of the first projection to a base of an adjacent projection; and a second tubular member (11) having a second bore (20) therethrough, a second screw thread (24) around an inner surface thereof, one or more raised portions (surface on which projections 39 are located) arranged circumferentially on an outer surface thereof, the raised portion defining a second face surrounding the second tubular member (11) and substantially perpendicular to the outer surface, the second face being at an end of the second tubular member (11), the second face having a plurality of second projections (39), each second projection having a substantially second straight portion arranged parallel to the second bore and a second sloping portion, joining an apex of the second projection to a base of an adjacent projection; wherein the first tubular member (10) slides within the second tubular member (11), the first and second screw threads (24) mate and on partial engagement of the screw threads, the first and second straight portions can meet to thereby transfer torque when the first member or the second member is rotated in the direction of the screw threads (Figs. 1 - 3; page 1, lines 69 - 80; page 2, lines 16 - 34, lines 56 - 68, and lines 105- 129). Wickersham fails to disclose the tubular members are releasably attached to each other by shearable means. Russell teaches a downhole connector including a shear pin (348) through an aperture in body (302) and within a pocket in sleeve (318) (Fig. 7) to preventing the disconnection and separation of the body (302) and the sleeve (318) until a predetermined force has been applied. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have

Art Unit: 3672

modified the structure as disclosed by Wickersham to include the shear pin as taught by Russell to prevent the disconnection and separation of downhole components until a predetermined force is applied to the shear pin.

Regarding claim 9, Wickersham in view of Russell discloses all of the limitations of the above claim(s) except for the apertures and pockets align when the first and second straight portions abut. Establishing the point at which alignment of the apertures and pockets occurs during the coupling process is a matter of design choice within the skill of the art.

Regarding claims 10 and 11, Russell teaches o-ring seals (308, 337) located in grooves at either end of a screw thread (334) (Fig. 7) to provide a water-tight seal between adjacent tubular members. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Wickersham to include the o-ring seals as taught by Russell to provide a water-tight seal between adjacent tubulars. Wickersham in view of Russell discloses all of the limitations of the above claim(s) except for the number of raised portions, projections, apertures, pockets, and shear pins. Determining the number of raised portions, projections, apertures, pockets, and shear pins required for a given application is a design choice within the skill of the art.

Regarding claim 20, Wickersham in view of Russell discloses all of the limitations of the above claim(s) except for cementing the liner in place by introducing cement axially into the bore and allow the slurry to exit the liner and locate between the liner and the wellbore. Wickersham teaches a fluid passage (20) extending longitudinally through the coupling assembly (page 2, lines 2 - 4) to allow fluid to pass from the uphole end of the coupling assembly to the downhole end of the coupling assembly. It would have been considered obvious to one of

Art Unit: 3672

ordinary skill in the art, at the time the invention was made, to have modified the structure of Wickersham in view of Russell to include introducing a cement slurry into a fluid passage (20) and allow it to exit the downhole end of the fluid passage to cement a liner to a wellbore and secure the coupling within the wellbore.

Regarding claim 25, Wickersham in view of Russell discloses all of the limitations of the above claim(s) except for the step of rotating and reciprocating the system on the drill string during cementing. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Wickersham in view of Forsyth et al. to include rotating and reciprocating the system on the drill string during cementing to ensure the proper positioning of the system within the wellbore.

4. Claims 2 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickersham in view of Russell as applied to claims 1 and 20 above, and further in view of Griffin et al. (2002/0167173). Wickersham in view of Russell discloses all of the limitations of the above claim(s) except for right hand screw threads. Griffin et al. teaches left-hand threads and right-hand threads are equivalent members and that the equivalent components of right-hand threads would merely be mirror images of those components used with left-hand threads (paragraph 0034). It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Wickersham in view of Russell with the threads as taught by Griffin et al. to join two members having external threads that are wound in the same direction.

5. Claims 3 - 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickersham in view of Russell as applied to claim 1 above, and further in view of Rollins (2,885,225).

Art Unit: 3672

Wickersham in view of Russell discloses all of the limitations of the above claim(s) except for square, double start screw threads having generous lead in edges. Rollins teaches a drill pipe coupling comprising square, double start screw threads (Figs. 1 - 3; column 2, lines 59 - 72) to form a connection having a quick and easy make-up, a long thread life, and good sealing on low torque. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the structure as disclosed by Wickersham in view of Russell with the square, double start screw threads as taught by Rollins to form a connection having a quick and easy make-up, a long thread life, and good sealing on low torque.

Allowable Subject Matter

6. Claims 12 - 15 and 17 - 19 are allowed.
7. Claims 22, 24, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art fails to teach or suggest the following components of a downhole coupling:
 - a. Positioning one or more radial outlets around the circumference of the first and second tubular members so that when the radial outlets of the first and second tubulars are aligned fluid can pass radially from the system;
 - b. Removing an assembly from the wellbore through the liner when the system is connected to the liner.

Response to Arguments

8. Applicant's arguments with respect to claims 1 - 26 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 3672

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN D. ANDRISH whose telephone number is (571)270-3098. The examiner can normally be reached on Mon - Fri, 7:30am - 5:00pm, Alternate Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Neuder/
Primary Examiner
Art Unit 3672

SDA
3/11/2009